

Ag. Waste Application and Excavated Ponds  
Grant County, South Dakota

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation.)

Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Aa: Aastad-----	60	Somewhat limited Restricted permeability Depth to saturated zone	0.50 0.24	Somewhat limited Slow refill Deep to water Cutbanks cave	0.97 0.38 0.10
Flom-----	30	Very limited Depth to saturated zone Leaching limitation Restricted permeability	1.00 0.70 0.50	Somewhat limited Slow refill Cutbanks cave	0.97 0.10
AbA: Arvilla-----	90	Very limited Filtering capacity Droughty	1.00 0.79	Very limited Deep to water	1.00
AbB: Arvilla-----	90	Very limited Filtering capacity Droughty	1.00 0.79	Very limited Deep to water	1.00
AbC: Arvilla-----	90	Very limited Filtering capacity Droughty	1.00 0.79	Very limited Deep to water	1.00
BaE: Barnes-----	50	Very limited Slope Restricted permeability	1.00 0.50	Very limited Deep to water	1.00

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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Buse-----	30	Very limited Slope Large stones on the surface Cobble content Restricted permeability Salinity	1.00 1.00 1.00 0.50 0.01	Very limited Deep to water	1.00
BbB: Barnes-----	65	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
Svea-----	25	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.47 0.10
BbC: Barnes-----	55	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
Svea-----	25	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.47 0.10
BbD: Barnes-----	45	Somewhat limited Slope Restricted permeability	0.63 0.50	Very limited Deep to water	1.00
Svea-----	30	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.47 0.10
Bc: Cubden-----	90	Somewhat limited Depth to saturated zone Restricted permeability	0.84 0.50	Somewhat limited Slow refill Cutbanks cave Deep to water	0.30 0.10 0.07
Bd: Brookings-----	90	Not limited		Very limited Deep to water	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value
BeF: Buse-----	60	Very limited Slope Restricted permeability	1.00 0.50	Very limited Deep to water	1.00
Forman-----	25	Very limited Slope Restricted permeability	1.00 0.50	Very limited Deep to water	1.00
BfD: Buse-----	45	Somewhat limited Slope Restricted permeability	0.63 0.50	Very limited Deep to water	1.00
Aastad-----	25	Somewhat limited Restricted permeability Depth to saturated zone	0.50 0.24	Somewhat limited Slow refill Deep to water Cutbanks cave	0.97 0.38 0.10
Forman-----	25	Somewhat limited Slope Restricted permeability	0.63 0.50	Very limited Deep to water	1.00
Da: Divide-----	85	Very limited Filtering capacity Depth to saturated zone Flooding	1.00 0.84 0.60	Very limited Cutbanks cave Deep to water	1.00 0.07
Db: Castlewood-----	85	Very limited Restricted permeability Depth to saturated zone Flooding Leaching limitation	1.00 1.00 0.60 0.50	Very limited Slow refill Cutbanks cave	1.00 0.10
EaA: Egeland-----	90	Not limited		Very limited Deep to water	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value
EaB: Egeland-----	85	Not limited		Very limited Deep to water	1.00
Ec: Estelline-----	90	Very limited Filtering capacity	1.00	Very limited Deep to water	1.00
Fa: Flom-----	90	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill	0.97
		Leaching limitation	0.70	Cutbanks cave	0.10
		Restricted permeability	0.50		
FbA: Fordville-----	90	Very limited Filtering capacity	1.00	Very limited Deep to water	1.00
FcB: Fordville-----	60	Very limited Filtering capacity	1.00	Very limited Deep to water	1.00
Renshaw-----	30	Very limited Filtering capacity	1.00	Very limited Deep to water	1.00
		Droughty	0.03		
FdA: Forman-----	70	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
Aastad-----	20	Somewhat limited Restricted permeability	0.50	Somewhat limited Slow refill	0.97
		Depth to saturated zone	0.24	Deep to water	0.38
				Cutbanks cave	0.10
FdB: Forman-----	60	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value
Aastad-----	25	Somewhat limited Restricted permeability Depth to saturated zone	0.50 0.24	Somewhat limited Slow refill Deep to water Cutbanks cave	0.97 0.38 0.10
FdC: Forman-----	55	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
Aastad-----	25	Somewhat limited Restricted permeability Depth to saturated zone	0.50 0.24	Somewhat limited Slow refill Deep to water Cutbanks cave	0.97 0.38 0.10
FdD: Forman-----	50	Somewhat limited Slope Restricted permeability	0.63 0.50	Very limited Deep to water	1.00
Aastad-----	30	Somewhat limited Restricted permeability Depth to saturated zone	0.50 0.24	Somewhat limited Slow refill Deep to water Cutbanks cave	0.97 0.38 0.10
FeC: Forman-----	65	Very limited Cobble content Restricted permeability	1.00 0.50	Very limited Deep to water	1.00
Aastad-----	25	Somewhat limited Restricted permeability Depth to saturated zone	0.50 0.24	Somewhat limited Slow refill Deep to water Cutbanks cave	0.97 0.38 0.10
FgC: Forman-----	50	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value
Buse-----	25	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
FgE: Forman-----	45	Very limited Slope Restricted permeability	1.00 0.50	Very limited Deep to water	1.00
Buse-----	30	Very limited Slope Restricted permeability	1.00 0.50	Very limited Deep to water	1.00
FhE: Forman-----	40	Very limited Slope Cobble content Restricted permeability	1.00 1.00 0.50	Very limited Deep to water	1.00
Buse-----	35	Very limited Slope Large stones on the surface Cobble content Restricted permeability Salinity	1.00 1.00 1.00 0.50 0.01	Very limited Deep to water	1.00
HaD: Hattie-----	85	Very limited Restricted permeability Slope	1.00 0.63	Very limited Deep to water	1.00
HaE: Hattie-----	85	Very limited Slope Restricted permeability	1.00 1.00	Very limited Deep to water	1.00
HbB: Sisseton-----	28	Not limited		Very limited Deep to water	1.00
Heimdal-----	52	Not limited		Very limited Deep to water	1.00

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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
HbC: Heimdal-----	45	Not limited		Very limited Deep to water	1.00
Sisseton-----	40	Not limited		Very limited Deep to water	1.00
HcA: Heimdal-----	70	Not limited		Very limited Deep to water	1.00
Svea-----	20	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.47 0.10
HcB: Heimdal-----	60	Not limited		Very limited Deep to water	1.00
Svea-----	25	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.47 0.10
La: Ladelle-----	90	Somewhat limited Flooding	0.60	Somewhat limited Deep to water Slow refill Cutbanks cave	0.90 0.47 0.10
Lb: Ladelle-----	85	Somewhat limited Flooding	0.60	Somewhat limited Deep to water Slow refill Cutbanks cave	0.90 0.47 0.10
Lc: Ludden-----	90	Very limited Restricted permeability Depth to saturated zone Flooding Ponding Runoff limitation	1.00 1.00 1.00 1.00 0.40	Very limited Slow refill Cutbanks cave	1.00 0.10

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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
M-W: Miscellaneous Water-	100	Not rated		Not rated	
MaE: Maddock-----	85	Very limited Slope Filtering capacity Leaching limitation Droughty	1.00 1.00 0.45 0.03	Very limited Deep to water	1.00
Mb: Marysland-----	90	Very limited Depth to saturated zone Filtering capacity Leaching limitation Flooding	1.00 1.00 0.70 0.60	Very limited Cutbanks cave	1.00
Oa: Overly-----	90	Somewhat limited Restricted permeability	0.81	Somewhat limited Slow refill  Deep to water Cutbanks cave	0.98  0.81 0.10
Pa: Parnell-----	90	Very limited Restricted permeability Ponding Depth to saturated zone Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill  Cutbanks cave	0.97  0.10
Pb: Southam-----	90	Very limited Restricted permeability Ponding Depth to saturated zone Runoff limitation Salinity	1.00 1.00 1.00 0.40 0.01	Somewhat limited Slow refill  Cutbanks cave Salty water	0.97  0.10 0.01



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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
PcA: Peever-----	85	Somewhat limited Restricted permeability Sodium content	0.89 0.08	Very limited Deep to water	1.00
PcB: Peever-----	65	Somewhat limited Restricted permeability	0.89	Very limited Deep to water	1.00
PcC: Peever-----	85	Somewhat limited Restricted permeability Sodium content	0.89 0.08	Very limited Deep to water	1.00
Pd: Peever-----	60	Somewhat limited Restricted permeability Sodium content	0.89 0.08	Very limited Deep to water	1.00
Cavour-----	30	Very limited Restricted permeability Salinity Runoff limitation Sodium content	1.00 0.50 0.40 0.18	Somewhat limited Slow refill Deep to water Salty water Cutbanks cave	0.98 0.90 0.78 0.10
Pe: Peever-----	62	Somewhat limited Restricted permeability Sodium content	0.89 0.08	Very limited Deep to water	1.00
Tonka-----	28	Very limited Restricted permeability Depth to saturated zone Ponding Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10

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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Pf: Orthents, Gravelly--	100	Very limited Slope Filtering capacity Droughty Leaching limitation	1.00 1.00  0.71 0.45	Very limited Deep to water	1.00
Ph: Playmoor-----	85	Very limited Depth to saturated zone Flooding Salinity Leaching limitation Sodium content	1.00  1.00 0.50 0.50  0.08	Very limited Cutbanks cave  Salty water Slow refill	1.00  0.50 0.47
Po: Poinsett-----	90	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
Ra: Rauville-----	80	Very limited Depth to saturated zone Flooding Runoff limitation	1.00  1.00 0.40	Very limited Cutbanks cave	1.00
RbA: Renshaw-----	90	Very limited Filtering capacity Droughty	1.00  0.03	Very limited Deep to water	1.00
RbB: Renshaw-----	85	Very limited Filtering capacity Droughty	1.00  0.03	Very limited Deep to water	1.00
RcD: Renshaw-----	55	Very limited Filtering capacity Slope Droughty	1.00  0.37 0.03	Very limited Deep to water	1.00

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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Sioux-----	35	Very limited Filtering capacity Droughty Leaching limitation Slope	1.00 0.78 0.45 0.37	Very limited Deep to water	1.00
RdE: Renshaw-----	50	Very limited Slope Filtering capacity Droughty	1.00 1.00 0.03	Very limited Deep to water	1.00
Sioux-----	40	Very limited Slope Cobble content Filtering capacity Droughty Leaching limitation	1.00 1.00 1.00 0.91 0.45	Very limited Deep to water	1.00
ReA: Rentill-----	90	Very limited Depth to dense layer Filtering capacity Restricted permeability	1.00 1.00 0.81	Very limited Deep to water	1.00
SaE: Sioux-----	65	Very limited Slope Filtering capacity Droughty Leaching limitation	1.00 1.00 0.78 0.45	Very limited Deep to water	1.00
Renshaw-----	25	Very limited Slope Filtering capacity Droughty	1.00 1.00 0.03	Very limited Deep to water	1.00
SbE: Sisseton-----	85	Very limited Slope	1.00	Very limited Deep to water	1.00

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		Rating class and limiting features	Value	Rating class and limiting features	Value
ScD: Sisseton-----	45	Somewhat limited Slope	0.63	Very limited Deep to water	1.00
Heimdal-----	30	Somewhat limited Slope	0.63	Very limited Deep to water	1.00
Sd: Svea-----	90	Not limited		Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.47 0.10
SeA: Swenoda-----	85	Somewhat limited Depth to saturated zone	0.24	Very limited Deep to water	1.00
Ta: Tonka-----	90	Very limited Restricted permeability Depth to saturated zone Ponding Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
Va: Vallars-----	90	Very limited Depth to saturated zone Restricted permeability	1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
Vb: Vallars-----	55	Very limited Depth to saturated zone Restricted permeability	1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
Parnell-----	35	Very limited Restricted permeability Ponding Depth to saturated zone Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.97 0.10

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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Vc: Vallars-----	55	Very limited Depth to saturated zone Restricted permeability	1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
Tonka-----	35	Very limited Restricted permeability Depth to saturated zone Ponding Leaching limitation	1.00 1.00 1.00 0.50	Somewhat limited Slow refill Cutbanks cave	0.30 0.10
VdD: Vienna-----	50	Somewhat limited Slope Restricted permeability	0.63 0.50	Very limited Deep to water	1.00
Buse-----	30	Somewhat limited Slope Restricted permeability	0.63 0.50	Very limited Deep to water	1.00
VeA: Vienna-----	65	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
Lismore-----	25	Somewhat limited Restricted permeability	0.50	Somewhat limited Slow refill Deep to water Cutbanks cave	0.97 0.81 0.10
VeB: Vienna-----	58	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
Lismore-----	32	Somewhat limited Restricted permeability	0.50	Somewhat limited Slow refill Deep to water Cutbanks cave	0.97 0.81 0.10

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Map symbol and soil name	Pct. of map unit	Application of manure and food- processing waste		Aquifer-fed excavated ponds	
		Rating class and limiting features	Value	Rating class and limiting features	Value
VeC: Vienna-----	60	Somewhat limited Restricted permeability	0.50	Very limited Deep to water	1.00
Lismore-----	30	Somewhat limited Restricted permeability	0.50	Somewhat limited Slow refill	0.97
				Deep to water	0.90
				Cutbanks cave	0.10
W: Water-----	100	Not rated		Not rated	

